```
FILE 'REGISTRY' ENTERED AT 11:15:08 ON 02 OCT 2006

=> S ADENOSINE DEAMINASE/CN
L1            3 ADENOSINE DEAMINASE/CN

=> D 1-3

L1   ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   214692-96-3  REGISTRY
ED   Entered STN:  24 Nov 1998
CN   Deaminase, transfer ribonucleate adenosine (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   ADAT deaminase
CN   Adenosine deaminase
CN   Transfer ribonucleate adenosine deaminase
CN   tRNA adenosine deaminase
CN   TRNA-specific adenosine deaminase
CN   TRNA:A34 deaminase
DR   77649-59-3
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

              23 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              23 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1   ANSWER 2 OF 3  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   152166-55-7  REGISTRY
ED   Entered STN:  07 Jan 1994
CN   Deaminase, double-stranded ribonucleate adenosine (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   ADAR deaminase
CN   ADAR1
CN   ADAR2
CN   Adenosine deaminase
CN   Deaminase, adenosine, RNA-dependent
CN   Double-stranded ribonucleate adenosine deaminase
CN   Double-stranded RNA adenine deaminase
CN   Double-stranded RNA adenosine deaminase
CN   Double-stranded RNA-specific adenosine deaminase
CN   Double-stranded RNA-specific editase 1
CN   DRADA
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   ADISNEWS, AGRICOLA, BIOSIS, CA, CAPLUS, CASREACT, CIN, PROMT,
       TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
             310 REFERENCES IN FILE CA (1907 TO DATE)
              10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             311 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1   ANSWER 3 OF 3  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   9026-93-1  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Deaminase, adenosine (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Adenosine aminohydrolase
CN   Adenosine deaminase
CN   Deoxyadenosine deaminase
```

CN E.C. 3.5.4.4
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA,
    CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,
    DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MSDS-OHS, PHAR, PROMT,
    TOXCENTER, USPAT2, USPATFULL
    Other Sources: EINECS**
        (**Enter CHEMLIST File for up-to-date regulatory information)

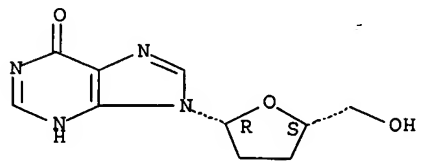
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            4537 REFERENCES IN FILE CA (1907 TO DATE)
              77 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            4545 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> S DIDEOXYINOSINE/CN
L2   1 DIDEOXYINOSINE/CN

=> D

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 69655-05-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, 2',3'-dideoxy- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2',3'-Dideoxyinosine
CN BMY 40900
CN DdI
CN DdI (nucleoside)
CN Didanosine
CN Dideoxyinosine
CN NSC 612049
CN Videx
CN Videx EC
FS STEREOSEARCH
MF C10 H12 N4 O3
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
    BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX,
    CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, HSDB*, IMSCOSEARCH,
    IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS,
    PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SCISEARCH, SYNTHLINE,
    TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, VETU
      (*File contains numerically searchable property data)
    Other Sources: DSL**
        (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

            2449 REFERENCES IN FILE CA (1907 TO DATE)
              41 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            2453 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> S DIDEOXYADENOSINE/CN
L3            1 DIDEOXYADENOSINE/CN

=> D

L3   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   4097-22-7  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Adenosine, 2',3'-dideoxy- (7CI, 8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   2',3'-Dideoxyadenosine
CN   Dideoxyadenosine
CN   NSC 98700
FS   STEREOSEARCH
DR   6699-71-4, 117174-26-2
MF   C10 H13 N5 O2
CI   COM
LC   STN Files:   ADISINSIGHT, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE,
       MRCK*, PHAR, PROMT, PROUSDDR, PS, RTECS*, SPECINFO, SYNTHLINE,
       TOXCENTER, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.  Rotation (+).
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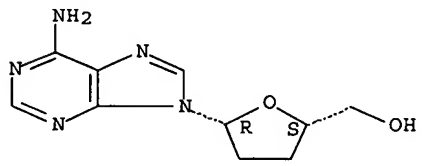


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             490 REFERENCES IN FILE CA (1907 TO DATE)
              28 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             490 REFERENCES IN FILE CAPLUS (1907 TO DATE)
               7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

FILE 'CAPLUS' ENTERED AT 11:16:30 ON 02 OCT 2006

=> S ADENOSINE DEAMINASE;S L1;S L1,L4
          88505 ADENOSINE
            760 ADENOSINES
          88690 ADENOSINE
                  (ADENOSINE OR ADENOSINES)
          13714 DEAMINASE
           1110 DEAMINASES
          13892 DEAMINASE
                  (DEAMINASE OR DEAMINASES)
L4         6739 ADENOSINE DEAMINASE
                  (ADENOSINE(W)DEAMINASE)


L5         4865 L1
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          4865 L1
L6        7026 (L1 OR L4)

=> S DIDEOXYINOSINE;S L2;S L2,L7
L7         764 DIDEOXYINOSINE


L8        2453 L2


          2453 L2
L9        2585 (L2 OR L7)

=> S DIDEOXYADENOSINE;S L3;S L3 OR L10
          1031 DIDEOXYADENOSINE
            12 DIDEOXYADENOSINES
L10       1034 DIDEOXYADENOSINE
                 (DIDEOXYADENOSINE OR DIDEOXYADENOSINES)


L11        490 L3


           490 L3
L12       1130 L3 OR L10

=> S IMMOBILIZE OR IMMOBILIZED
          4216 IMMOBILIZE
           453 IMMOBILIZES
          4645 IMMOBILIZE
                 (IMMOBILIZE OR IMMOBILIZES)
         97295 IMMOBILIZED
L13     100281 IMMOBILIZE OR IMMOBILIZED

=> S ENZYME
        785493 ENZYME
        455062 ENZYMES
L14     994688 ENZYME
                 (ENZYME OR ENZYMES)

=> S L13(6A)L14
L15      17651 L13(6A)L14

=> S L6(6A)L13
L16         41 L6(6A)L13

=> S L16 AND L9
L17          0 L16 AND L9

=> S L16 AND L10
L18          0 L16 AND L10

=> S IPS(W)400
          2735 IPS
        394505 400
L19          1 IPS(W)400

=> D CBIB ABS

L19  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2006 ACS on STN
2004:739860   Document No. 141:259472  Process for preparing dideoxyinosine
     using recombinant human adenosine deaminase.  Skonezny, Paul M.; Politino,
     Michael; Liu, Suo W.; Boyle, Alfred W.; Chen, Jason G.; Stein, Gregory L.;
     Franceschini, Thomas; Anderson, Wendy L. (USA).  U.S. Pat. Appl. Publ. US
     2004175804 A1 20040909, 13 pp.  (English).  CODEN: USXXCO.  APPLICATION:
     US 2004-787284 20040226.  PRIORITY: US 2003-2003/PV451842 20030304.
```

AB A method of making didanosine (ddI) including the steps of: (a) obtaining an enzyme expressing ddA deaminase activity; (b) immobilizing the enzyme onto an insol. support; (c) contacting the enzyme with a dideoxyadenosine (ddA) solution of at least about 4% weight volume ddA in water for a time and under conditions to produce a ddI solution; and (d) isolating the ddI from the ddI solution Optionally, the ddI mother liquor is reused in subsequent runs to improve yield.

=> S EUPERGIT
L20 326 EUPERGIT

=> S L20 AND L15
L21 123 L20 AND L15

=> S L21 AND L6
L22 0 L21 AND L6

=> S L21 AND L9;S L21 AND L12
L23 0 L21 AND L9

L24 0 L21 AND L12

=> D L21 1-123 TI
=> D L21 3,15,18,23,24,27-29,39,41,51,58,60,63,66,71,82,88,121,123 CBIB ABS

L21 ANSWER 3 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2006:382255 Document No. 145:187119 Immobilization of thermostable trehalose synthase for the production of trehalose. Cho, Youn-Jeung; Park, Oh-Jin; Shin, Hyun-Jae (309 Bioventure Center (BVC), KRIBB, Enzbank Inc., Yusong, Daejon, 305-333, S. Korea). Enzyme and Microbial Technology, 39(1), 108-113 (English) 2006. CODEN: EMTED2. ISSN: 0141-0229. Publisher: Elsevier B.V..

AB Screening of several immobilization carriers for trehalose synthase (TSase) from Thermus caldophilus GK24 has been performed for the efficient production of trehalose from maltose. This is the first report on immobilization of recombinant TSase for the production of trehalose. Taking account of yields of trehalose produced, Eupergit C250L was selected as a carrier in this work. The immobilization capacity reached 11 units/g-supports (92% of immobilization yield) when the conditions were as follows: coupling time of 14 h at 25°C in 40 mM potassium phosphate buffer (pH 7.0) and enzyme loading of 12 units/g-supports. The optimum pH was not affected by immobilization, but optimum temperature was shifted from 45 to 65°C. Immobilized enzyme was stable at high temperature (70°C) for 16 days, whereas free enzyme retained 13% of its original activity after 6 days of incubation. The immobilized TSase could be used in the repetitive manner more than 10 times in batch reaction. Using the continuous system (bed volume: 25 mL), a maximum yield of 42% trehalose has been reached from 50 g/L maltose when the flow rate was 0.25 mL/min.

L21 ANSWER 15 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2004:584495 Document No. 141:119327 Immobilized biocatalysts usable for the manufacture of natural nucleosides and modified analogs through enzymatic transglycosylation reactions. Tonon, Giancarlo; Capra, Emanuele; Orsini, Gaetano; Zuffi, Gabriele (Keryos Spa, Italy). Eur. Pat. Appl. EP 1439220 A1 20040721, 16 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-425018 20030116.

AB The discovery that the enzymes uridine phosphorylase (UdP) and purine nucleoside phosphorylase (PNP) are present simultaneously in the cytoplasm of numerous wild-type strains of microorganisms in proportions compatible with the function of catalyzing transglycosylation reactions has suggested their direct use, i.e., in the form of whole cell prepns., as biocatalysts in the preparation of nucleosides and of modified analogs. Thus, novel biocatalysts are produced by the co-immobilization of the recombinant enzymes UdP and PNP by covalent bonds on solid substrates functionalized with epoxy groups. The novel biocatalysts are usable for successive reaction cycles, are resistant to heat and to the presence of solvents, and can advantageously be used

in the industrial production of natural nucleosides and of modified analogs of pharmaceutical interest. The advantages of this approach are represented by the possibility of avoiding the extraction and purification of UdP and PNP, as well as by the stability of the cytoplasmic enzymic activity. The co-immobilized enzyme preparation is preserved at 4° as moist resin in 100 mM potassium phosphate buffer, 20% isopropanol, pH 7, 500 ppm Et p-hydroxybenzoate, where complete maintenance of transglycosylation catalytic activity is achieved for up to 6 mo. The preparation is stable up to temperature of 60-70°, is compatible with a high concentration of water-miscible solvents, maintains good enzymic activity at pH 6-9, and is optimal for use in most glycosylation reactions which use ribofuranosyluracil, 2'-deoxyribofuranosyluracil, 2',3'-deoxyribofuranosyluracil, and arabinofuranosyluracil as sugar donors.

L21 ANSWER 18 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

2004:492255 Document No. 141:52965 Cephalexin biosynthesis by polymer immobilized penicillin amidase. Menzler, Stefan; Boller, Thomas; Petereit, Hans-Ulrich; Meier, Christian (Roehm GmbH & Co. KG, Germany). Ger. Offen. DE 10256656 A1 20040617, 9 pp. (German). CODEN: GWXXBX. APPLICATION: DE 2002-10256656 20021203.

AB A process is provided for the enzymic biosynthesis of cephalexin by a penicillin amidase immobilized on a copolymer. The copolymer used is composed of methacrylamide, allyl glycidyl ether, glycidyl methacrylate and methylene-bis-methacrylamide. The immobilized biocatalyst then serves to catalyze the acylation of 7-aminodesacetoxycephalosporanic acid with D-phenylglycinamde.

L21 ANSWER 23 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

2003:1013016 Document No. 140:252363 Synthesis of maltooligosyl fructofuranosides catalyzed by immobilized cyclodextrin glucosyltransferase using starch as donor. Martin, M. Teresa; Angeles Cruces, M.; Alcalde, Miguel; Plou, Francisco J.; Bernabe, Manuel; Ballesteros, Antonio (C.S.I.C., Departamento de Biocatalisis, Instituto de Catalisis, Madrid, 28049, Spain). Tetrahedron, 60(3), 529-534 (English) 2004. CODEN: TETRAB. ISSN: 0040-4020. OTHER SOURCES: CASREACT 140:252363. Publisher: Elsevier Science B.V..

AB Cyclodextrin glucosyltransferase (CGTase) from Thermoanaerobacter sp. was covalently immobilized on Eupergit C and used for the synthesis of maltooligosyl fructofuranosides employing soluble starch as donor and sucrose as acceptor. Using a weight ratio starch-sucrose of 1:2, the conversion of starch into acceptor products catalyzed by soluble and immobilized CGTases was higher than 80% in 48 h. Under these conditions, the reaction was selective for the formation of maltosyl fructofuranoside.

L21 ANSWER 24 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

2003:573708 Document No. 139:306570 Enzymatic transformations. Immobilized A. niger epoxide hydrolase as a novel biocatalytic tool for repeated-batch hydrolytic kinetic resolution of epoxides. Mateo, Cesar; Archelas, Alain; Fernandez-Lafuente, Roberto; Guisan, Jose Manuel; Furstoss, Roland (Groupe Biocatalyse et Chimie Fine, UMR CNRS 6111, Universite de la Mediterranee, Marseille, 13288, Fr.). Organic & Biomolecular Chemistry, 1(15), 2739-2743 (English) 2003. CODEN: OBCRAK. ISSN: 1477-0520. Publisher: Royal Society of Chemistry.

AB Studies aimed at immobilization of the Aspergillus niger epoxide hydrolase were performed. The use of conventional approaches, i.e. of com. available supports and classical methodologies, only led to low stabilization and unsatisfactory enzymic activity recovery. Therefore, a new strategy based on the use of a "second generation" type of epoxy-activated supports allowing multi-point covalent immobilization, i.e. Eupergit C, partially modified with ethylene diamine (Eupergit C/EDA), and of an adequate exptl. procedure was set up. This allowed us to prepare an immobilized biocatalyst with 70% retention of the initial enzymic activity and a stabilization factor of about 30. Interestingly, this biocatalyst also led to a noticeable increase of the E value for the resolution of two test substrates, styrene oxide and p-chlorostyrene oxide. This was improved from about 25 to 56 and from 40 to 100, resp. A typical repeated batch experiment indicated that the thus immobilized enzyme could be re-used for over 12 cycles without any noticeable loss of enzymic activity or change in enantioselectivity. This therefore opens the way for the use of an heterogeneous

catalysis' methodol. for achieving the preparation of various enantiopure epoxides via biocatalyzed hydrolytic kinetic resolution

L21 ANSWER 27 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2003:76957 Document No. 138:121669 Transglycosylation of nucleosides by biocatalysis with immobilized and stabilized enzymes. Pregnolato, Massimo; Terreni, Marco; Albertini, Alessandra; Guisan, Jose' Manuel; Lafuente, Roberto Fernandez; Frigerio, Marco (Pro.Bio.Sint Srl, Italy; Pregnolato Massimo). PCT Int. Appl. WO 2003008619 A1 20030130, 26 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-IT470 20020717. PRIORITY: IT 2001-MI1537 20010719.

AB A method of transglycosylation in aqueous solution between a nucleoside and a purine or pyrimidine base in the presence of phosphate ions and of uridine phosphorylase and purine nucleoside phosphorylase enzymes is described; in the method in question, the uridine phosphorylase is immobilized on a hydrophobic epoxy resin hydrophilized by reaction with amino acids and/or polyamines, and the purine nucleoside phosphorylase is immobilized by multi-point covalent bonding on agarose gel. The method permits high bioconversion levels.

L21 ANSWER 28 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2003:28592 Document No. 138:286055 Immobilization on Eupergit C of cyclodextrin glucosyltransferase (CGTase) and properties of the immobilized biocatalyst. Martin, M. Teresa; Plou, Francisco J.; Alcalde, Miguel; Ballesteros, Antonio (Departamento de Biocatalisis, Instituto de Catalisis, Madrid, 28049, Spain). Journal of Molecular Catalysis B: Enzymatic, 21(4-6), 299-308 (English) 2003. CODEN: JMCEF8. ISSN: 1381-1177. Publisher: Elsevier Science B.V..

AB The extreme thermophilic cyclodextrin glucanotransferase (CGTase) from Thermoanaerobacter sp. was covalently attached to Eupergit C. Different immobilization parameters (incubation time, ionic strength, pH, ratio enzyme/support, etc.) were optimized. The maximum yield of bound protein was around 80% (8.1 mg/g support), although the recovery of β-cyclodextrin cyclization activity was not higher than 11%. The catalytic efficiency was lower than 15%. Results were compared with previous studies on covalent immobilization of CGTase.The enzymic properties of immobilized CGTase were investigated and compared with those of the soluble enzyme. Soluble and immobilized CGTases showed similar optimum temperature (80-85°C) and pH (5.5) values, but the pH profile of the immobilized CGTase was broader at higher pH values. The thermoinactivation of the CGTase coupled to Eupergit C was slower than the observed with the native enzyme. The half-life of the immobilized enzyme at 95°C was five times higher than that of the soluble enzyme. The immobilized CGTase maintained 40% of its initial activity after 10 cycles of 24 h each. After immobilization, the selectivity of CGTase (determined by the ratio CDs/oligosaccharides) was notably shifted towards oligosaccharide production

L21 ANSWER 29 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2002:832808 Document No. 137:351600 enzymic process for preparing 3-cephalosporanic acid derivatives using α-ketoacid derivatives. Sanchez-Ferrer, Alvaro; Lopez-Mas, Jose Aniceto; Garcia-Carmona, Francisco (Bioferma Murcia, S.A., Spain). PCT Int. Appl. WO 2002085914 A2 20021031, 66 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE,

BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP4353 20020418. PRIORITY: EP 2001-201426 20010419; EP 2001-201699 20010509; EP 2001-201718 20010509; IE 2001-1024 20011130; IE 2001-1025 20011130.

AB A process for preparing cephalosporanic acid derivs. comprises the steps of enzymically converting a 3-thiolated cephalosporin C compound into a 3-thiolated-α-ketoadipyl-7-aminocephalosporanic acid derivative The resulting compds. are used in the preparation of cephalosporin C antibiotics and derivs. Thus, D-amino acid oxidase, catalase, and cephalosporin amidase, were coimmobilized on Eupergit C250L. The resulting column was then poured into a column bioreactor. 7-Amino-3-[(1-methyl-1H- tetrazol-5-yl)-thiomethyl]-cephalosporanic acid was then biosynthesized by feeding the immobilized enzyme column with 7-β-(5-Amino-5-carboxypentanamido)-3-[(1-methyl-1H-tetrazol-5-yl)-thiomethyl]-cephalosporanic acid.

L21 ANSWER 39 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

2002:255826 Document No. 136:291019 Immobilized β-glucan-cleaving enzymes for beer manufacture. Bernhardt, Ulrich; Kuehl, Bert; Schlagheck, Bernd; Quandt, Christina (Novabiotec Fechter G.m.b.H., Germany; Anakat Institut fuer Biotechnologie G.m.b.H.). Ger. Offen. DE 10043867 A1 20020404, 6 pp. (German). CODEN: GWXXBX. APPLICATION: DE 2000-10043867 20000904.

AB The invention concerns a β-glucan-cleaving enzyme immobilized on a solid support, a method for its production, and the use of the immobilized enzyme beer production

L21 ANSWER 41 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

2002:123881 Document No. 137:32079 EUPERGIT Oxirane Acrylic Beads: How to Make Enzymes Fit for Biocatalysis. Boller, Thomas; Meier, Christian; Menzler, Stefan (Degussa Specialty Polymers, Roehm GmbH and Co. KG, Darmstadt, D-64293, Germany). Organic Process Research & Development, 6(4), 509-519 (English) 2002. CODEN: OPRDFK. ISSN: 1083-6160. Publisher: American Chemical Society.

AB A review. Enzyme recycling is essential for the development of large-scale enzyme-catalyzed biotransformations. Recycling is most convenient using enzymes immobilized on solid supports. Although immobilization on solid supports has been pursued since the 1950s, there are no general rules for selecting the best support for a given application. The com. products EUPERGIT C and EUPERGIT C 250 L have been used for a wide variety of different enzymes and reactions. The present review draws up a comprehensive application profile of both EUPERGIT carriers. The reader gets (a) examples of biotransformations using oxidoreductases, transferases, hydrolases and lyases immobilized on EUPERGIT; (b) key data of the biotransformations, i.e., scale, yield, purity, and enantiomeric excess; (c) efficiency of the immobilization (% immobilized activity); (d) where appropriate, operational stability of the immobilized enzyme prepns., i.e., number of cycles, residual activity; (e) specific advantages of the immobilized enzyme over the free enzyme apart from enzyme recycling, for example, improved stability and selectivity. Thus, the present review can serve as a guideline when selecting a resin for enzyme immobilization. Literature published between 1985 and 2000 is covered.

L21 ANSWER 51 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

2001:300857 Document No. 134:322700 Immobilization of Streptomyces penicillin V acylase on Eupergit C for use in 6-aminopenicillanic acid production. Acebal Sarabia, Carmen; Torres Bacete, Jesus; Arroyo Sanchez, Miguel; Torres Guzman, Raquel; De La Mata Riesco, Isabel; Castillon Borreguero, Maria Pilar (Universidad Complutense De Madrid Rectorado, Spain). PCT Int. Appl. WO 2001029202 A1 20010426, 15 pp. DESIGNATED STATES: W: AU, CA, JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Spanish). CODEN: PIXXD2. APPLICATION: WO 2000-ES408 20001023. PRIORITY: ES 1999-2332 19991022.

AB Immobilization of penicillin V acylase of Streptomyces lavendulae ATCC 13664 on com. support Eupergit C is disclosed. Treatment of this material with bovine serum albumin enhances the activity of the immobilized enzyme. Maximal activity of the immobilized

enzyme is observed at pH 9.5-10.5 at 40-45°. Under these conditions, 80% of the penicillin V substrate is hydrolyzed after 1 h. No loss of activity is found after 50 uses of the immobilized hydrolase.

L21 ANSWER 58 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2000:688353 Document No. 133:263222 Surfactant-coated lipase complex immobilized on insoluble matrix and its uses for transesterification of oils and fats in hydrophobic organic media. Basheer, Sobhi (Enzymotec Ltd., Israel). PCT Int. Appl. WO 2000056869 A2 20000928, 79 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-IL166 20000316. PRIORITY: IL 1999-129086 19990322.

AB A lipase preparation comprising an insol. matrix and a surfactant-coated lipase complex immobilized onto said insol. matrix is disclosed. Method of preparation and the use of the immobilized lipase as a biocatalyst for catalyzing, for example, inter- and/or trans-esterification of oils and fats in hydrophobic organic media are disclosed. The novel procedures include two steps. In the first step, the enzyme is activated by being coated with a surfactant. In the second step, the enzyme is immobilized on the matrix of choice. The steps can be executed in any order.

L21 ANSWER 60 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2000:505909 Document No. 133:321014 Eupergit C, a carrier for immobilization of enzymes of industrial potential. Katchalski-Katzir, E.; Kraemer, D. M. (Department of Biological Chemistry, Weizmann Institute of Science, Rehovot, Israel). Journal of Molecular Catalysis B: Enzymatic, 10(1-3), 157-176 (English) 2000. CODEN: JMCEF8. ISSN: 1381-1177. Publisher: Elsevier Science B.V..

AB A review with 47 refs. Eupergit C is a carrier consisting of macroporous beads for immobilizing enzymes of industrial potential for the production of fine chems. and pharmaceuticals. Various enzymes immobilized on Eupergit C are reviewed in comparison with other carrier materials in terms of the operational stability of the resp. biocatalysts at substrate concns. realistic for industrial production Other aspects of relevance in that field, such as the demand for purity of enzyme to be immobilized or type of reactor optimal for a given application, are also discussed. An automatic reactor simulating, at laboratory scale, the performance of an industrial stirred tank reactor (STR) is described, and its utilization for evaluating the performance of immobilized enzymes is shown.

L21 ANSWER 63 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2000:410088 Document No. 133:192010 Immobilization/stabilization on Eupergit C of the β-galactosidase from B. circulans and an α-galactosidase from Aspergillus oryzae. Hernaiz, M. J.; Crout, D. H. G. (Department of Chemistry, University of Warwick, Coventry, CV4 7AL, UK). Enzyme and Microbial Technology, 27(1-2), 26-32 (English) 2000. CODEN: EMTED2. ISSN: 0141-0229. Publisher: Elsevier Science Ireland Ltd..

AB Two synthetically useful glycosidases, the β-galactosidase from Bacillus circulans and an α-galactosidase from Aspergillus oryzae have been immobilized on Eupergit C. The immobilized enzymes retain high catalytic activity and show increased thermal stability compared with the free enzymes.

L21 ANSWER 66 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
2000:255846 Document No. 133:39867 Increase in conformational stability of enzymes immobilized on epoxy-activated supports by favoring additional multipoint covalent attachment. Mateo, C.; Abian, O.; Fernandez-Lafuente, R.; Guisan, J. M. (CSIC, Instituto de Catalisis,

Departamento de Biocatalisis, Campus Universidad Autonoma, Madrid, 28049, Spain). Enzyme and Microbial Technology, 26(7), 509-515 (English) 2000. CODEN: EMTED2. ISSN: 0141-0229. Publisher: Elsevier Science Ireland Ltd..

AB Epoxy supports (Eupergit C) may be very suitable to achieve the multipoint covalent attachment of proteins and enzymes, therefore, to stabilize their three-dimensional structure. To achieve a significant multipoint covalent attachment, the control of the exptl. conditions was found to be critical A three-step immobilization/stabilization procedure is here proposed: 1) the enzyme is firstly covalently immobilized under very mild exptl. conditions (e.g. pH 7.0 and 20°C); 2) the already immobilized enzyme is further incubated under more drastic conditions (higher pH values, longer incubation periods, etc.) to "facilitate" the formation of new covalent linkages between the immobilized enzyme mol. and the support; 3) the remaining groups of the support are blocked to stop any addnl. interaction between the enzyme and the support. Progressive establishment of new enzyme-support attachments was showed by the progressive irreversible covalent immobilization of several subunits of multi-subunits proteins (all non-covalent structures contained in crude exts. of different microorganism, penicillin G acylase and chymotrypsin). This multipoint covalent attachment enabled the significant thermostabilization of two relevant enzymes, (compared with the just immobilized derivs.): chymotrypsin (5-fold factor) and penicillin G acylase (18-fold factor). Bearing in mind that this stabilization was additive to that achieved by conventional immobilization, the final stabilization factor become 100-fold comparing soluble penicillin G acylase and optimal derivative These stabilizations were observed also when the inactivations were promoted by the enzyme exposure to drastic pH values or the presence of cosolvents.

L21 ANSWER 71 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

1999:219592 Document No. 131:43615 Isolation and purification of penicillin G acylase obtained from Escherichia coli (NCIM-2400) and immobilization on Eupergit C for the production of 6-aminopenicillanic acid. Hegde, M. M.; Thadani, S. B.; Singh, Upkar; Naik, S. R. (Research and Development, Hindustan Antibiotics Ltd., Pune, 411 018, India). Hindustan Antibiotics Bulletin, 39(1-4), 1-10 (English) 1997. CODEN: HINAAU. ISSN: 0018-1935. Publisher: Hindustan Antibiotics, Ltd.

AB Penicillin G-acylase is produced by submerged cultivation of E. Coli (NCIM-2400) and extracted from the harvested fermented broth, purified (affinity chromatog.) and immobilized on Eupergit C (Synthetic polymer in bead form). The immobilized penicillin G acylase properties are studied and compared with soluble penicillin G-acylase. The control parameters for conversion of penicillin G-K to 6-APA are optimized [e.g. substrate (Pen G-K) concentration ratio to immobilized penicillin G-acylase, temperature, pH etc.] in a stirred tank reactor. Our findings suggest that immobilized penicillin G-acylase can be used com. and the productivity of 1 kg of immobilized enzyme is around 400 kg of 6-APA under given desired stipulated conditions.

L21 ANSWER 82 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

1997:103520 Document No. 126:183155 Carbon-carbon bond synthesis: Preparation and use of immobilized transketolase. Brocklebank, Simon P.; Mitra, Robin K.; Woodley, John M.; Lilly, Malcolm D. (Advanced Center for Biochemical Engineering Department of Chemical and Biochemical Engineering, University College London, London, WC1E 7JE, UK). Annals of the New York Academy of Sciences, 799(Enzyme Engineering XIII), 729-736 (English) 1996. CODEN: ANYAA9. ISSN: 0077-8923. Publisher: New York Academy of Sciences.

AB The authors describe the preparation of transketolase immobilized by covalent binding to epoxy-activated polymethylacrylamide beads (Eupergit -C) an the performance of this biocatalyst in a model reaction.

L21 ANSWER 88 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN

1994:675253 Document No. 121:275253 Properties of GL-7ACA-acylase immobilized on EUPERGIT C and the preparation of 7ACA. Liu, Guangrong; Jiang, Yunlong; Yu, Heci; Zhang, Jie; Yuan, Jianping; Chen, Junlin; Shen, Ying; Zhang, Yuenian (Inst. Antibiot., Shanghai No.3 Pharm. Plant, Shanghai, 200052, Peop. Rep. China). Zhongguo Kangshengsu Zazhi, 18(6), 443-6 (Chinese) 1993. CODEN: ZKZAEY. ISSN: 1001-8689.

AB Detail of the process of the immobilization of GL-7ACA-acylase on EUPERGIT C (Rohmpharma, Germany), was reported. Results showed that the rate of recovery of GL-7ACA-acylase was 90%; the specific activity of immobilized enzyme was 30-40 U per g; 120 g of immobilized enzyme could split 15 g of substrate into 7.5 g of 7ACA; the total yield of the process was 70% and the thermostability of the enzyme was improved. The Km of the immobilized enzyme was 0.526 mmol/L as compared to 0.278 mmol/L when the hydrolytic process proceeded from using enzyme solution

L21 ANSWER 121 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
1986:30925 Document No. 104:30925 Glucose oxidase immobilized on Eupergit C and CPG-10. A comparison. Wehnert, G.; Sauerbrei, A.; Schuegerl, K. (Inst. Tech. Chem., Univ. Hannover, Hannover, D-3000/1, Fed. Rep. Ger.). Biotechnology Letters, 7(11), 827-30 (English) 1985. CODEN: BILED3. ISSN: 0141-5492.

AB By using a photometric test, 2 immobilization matrixes, Eupergit C and controlled pore glass CPG-10, were investigated with regard to their binding capacity for glucose oxidase (GOD). Eupergit C had a specific binding capacity 3-fold higher than CPG-10. A long-run test was carried out with an enzyme thermistor to detect the immobilized enzyme activity of the Eupergit C preparation After 3 wk, enzyme activity had declined to 52% of the original value; however, no addnl. loss of GOD activity was observed between 3 and 6 wk.

L21 ANSWER 123 OF 123 CAPLUS COPYRIGHT 2006 ACS on STN
1985:181528 Document No. 102:181528 Hydrolytic enzymes in organic synthesis. 5. Immobilized porcine liver esterase: a convenient reagent for the preparation of chiral building blocks. Laumen, Kurt; Reimerdes, Ernst H.; Schneider, Manfred; Goerisch, Helmut (Bergische Univ.-GH-Wuppertal, Wuppertal, D-5600/1, Fed. Rep. Ger.). Tetrahedron Letters, 26(4), 407-10 (English) 1985. CODEN: TELEAY. ISSN: 0040-4039. OTHER SOURCES: CASREACT 102:181528.

AB A simple method for the effective covalent immobilization or porcine liver esterase on a com. support is described, and the application of this reagent for the preparation of chiral building blocks on a 50-500 mmol scale is demonstrated. For enzyme immobilization, the enzyme is dialyzed against phosphate buffer and then mixed with oxirane-activated acrylic beads (Eupergit C). The activity of the immobilized enzyme is only slightly reduced and the reagent can be stored at 7° for several mo. and has excellent sp. activity. An example is given of the use of the reagent for the preparation of (-)-(1S,4R)-4-hydroxy-2- cyclopentenylacetate by enantioselective hydrolysis of cis-1,4-diacetoxycyclopentene in 1 day.

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=> E SKONEZNY P/AU
=> S E4-E6
             1 "SKONEZNY P M"/AU
            13 "SKONEZNY PAUL M"/AU
             2 "SKONEZNY PAUL MARCEL"/AU
L25         16 ("SKONEZNY P M"/AU OR "SKONEZNY PAUL M"/AU OR "SKONEZNY PAUL
               MARCEL"/AU)

=> E POLITINO M/AU
=> S E5
L26         17 "POLITINO MICHAEL"/AU

=> E LIU SUO/AU
=> S E1-E8
             1 "LIU SUNHUA"/AU
             1 "LIU SUNJI"/AU
             1 "LIU SUO"/AU
             1 "LIU SUO BING"/AU
             8 "LIU SUO EN"/AU
             3 "LIU SUO W"/AU
             7 "LIU SUO WIN"/AU
             2 "LIU SUO XIANG"/AU
L27         24 ("LIU SUNHUA"/AU OR "LIU SUNJI"/AU OR "LIU SUO"/AU OR "LIU SUO
               BING"/AU OR "LIU SUO EN"/AU OR "LIU SUO W"/AU OR "LIU SUO WIN"/A
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              U OR "LIU SUO XIANG"/AU)

=> S E3-E8
             1 "LIU SUO"/AU
             1 "LIU SUO BING"/AU
             8 "LIU SUO EN"/AU
             3 "LIU SUO W"/AU
             7 "LIU SUO WIN"/AU
             2 "LIU SUO XIANG"/AU
L28         22 ("LIU SUO"/AU OR "LIU SUO BING"/AU OR "LIU SUO EN"/AU OR "LIU
                SUO W"/AU OR "LIU SUO WIN"/AU OR "LIU SUO XIANG"/AU)

=> E BOYLE A/AU
=> S E3,E24
            19 "BOYLE A"/AU
             8 "BOYLE ALFRED W"/AU
L29         27 ("BOYLE A"/AU OR "BOYLE ALFRED W"/AU)

=> E CHEN J/AU
=> S E3,E4,E6-E12,E2-E27,E31-E39,E51-E56,E59-E60,E165-E171,E236-E247
          1810 "CHEN J"/AU
            13 "CHEN J A"/AU
          1150 "CHEN J C"/AU
             1 "CHEN J C C"/AU
             1 "CHEN J C J"/AU
             1 "CHEN J C J C"/AU
             2 "CHEN J C P"/AU
             7 "CHEN J C T"/AU
            10 "CHEN J C Y"/AU
             1 "CHEN IYUE"/AU
          1810 "CHEN J"/AU
            13 "CHEN J A"/AU
            21 "CHEN J B"/AU
          1150 "CHEN J C"/AU
             1 "CHEN J C C"/AU
             1 "CHEN J C J"/AU
             1 "CHEN J C J C"/AU
             2 "CHEN J C P"/AU
             7 "CHEN J C T"/AU
            10 "CHEN J C Y"/AU
             1 "CHEN J CHUN"/AU
            79 "CHEN J D"/AU
            24 "CHEN J D Z"/AU
             1 "CHEN J DENNIS"/AU
            44 "CHEN J DON"/AU
             8 "CHEN J E"/AU
           155 "CHEN J F"/AU
            23 "CHEN J FUNG"/AU
           203 "CHEN J G"/AU
             1 "CHEN J GENE"/AU
           370 "CHEN J H"/AU
             1 "CHEN J H C"/AU
             1 "CHEN J H K"/AU
             2 "CHEN J H S"/AU
             1 "CHEN J HONG"/AU
           136 "CHEN J J"/AU
            58 "CHEN J J J"/AU
             1 "CHEN J J L"/AU
             1 "CHEN J J S"/AU
             1 "CHEN J J W"/AU
             1 "CHEN J J Y"/AU
             1 "CHEN J JAMES"/AU
           104 "CHEN J K"/AU
             2 "CHEN J K W"/AU
           363 "CHEN J S"/AU
             1 "CHEN J S C"/AU
             1 "CHEN J S F"/AU
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              1 "CHEN J S FRED"/AU
              3 "CHEN J S J"/AU
              1 "CHEN J SAMUEL"/AU
            158 "CHEN J W"/AU
              2 "CHEN J W C"/AU
              7 "CHEN JAMES Y"/AU
              1 "CHEN JAMES Y C"/AU
             12 "CHEN JAMES Y P"/AU
              1 "CHEN JAMES YI CHENG"/AU
              4 "CHEN JAMES YOK JEN"/AU
              1 "CHEN JAMES YOKJEN"/AU
              1 "CHEN JAMES YUN JONG"/AU
             25 "CHEN JASON"/AU
              1 "CHEN JASON A"/AU
              1 "CHEN JASON C S"/AU
              6 "CHEN JASON G"/AU
              1 "CHEN JASON H"/AU
             32 "CHEN JASON J"/AU
              1 "CHEN JASON J X"/AU
              1 "CHEN JASON KOU CHAW"/AU
              5 "CHEN JASON S"/AU
              2 "CHEN JASON SHIH HAO"/AU
              1 "CHEN JASON WEI TA"/AU
              2 "CHEN JASON Y"/AU
L30        4791 ("CHEN J"/AU OR "CHEN J A"/AU OR "CHEN J C"/AU OR "CHEN J C
                C"/AU OR "CHEN J C J"/AU OR "CHEN J C J C"/AU OR "CHEN J C P"/AU
                OR "CHEN J C T"/AU OR "CHEN J C Y"/AU OR "CHEN IYUE"/AU OR "CHEN
                J"/AU OR "CHEN J A"/AU OR "CHEN J B"/AU OR "CHEN J C"/AU OR
               "CHEN J C C"/AU OR "CHEN J C J"/AU OR "CHEN J C J C"/AU OR "CHEN
               J C P"/AU OR "CHEN J C T"/AU OR "CHEN J C Y"/AU OR "CHEN J CHUN"/
               AU OR "CHEN J D"/AU OR "CHEN J D Z"/AU OR "CHEN J DENNIS"/AU OR
               "CHEN J DON"/AU OR "CHEN J E"/AU OR "CHEN J F"/AU OR "CHEN J
               FUNG"/AU OR "CHEN J G"/AU OR "CHEN J GENE"/AU OR "CHEN J H"/AU
               OR "CHEN J H C"/AU OR "CHEN J H K"/AU OR "CHEN J H S"/AU OR "CHEN
                J HONG"/AU OR "CHEN J J"/AU OR "CHEN J J J"/AU OR "CHEN J J
               L"/AU OR "CHEN J J S"/AU OR "CHEN J J W"/AU OR "CHEN J J Y"/AU
               OR "CHEN J JAMES"/AU OR "CHEN J K"/AU OR "CHEN J K W"/AU OR "CHEN
                J S"/AU OR "CHEN J S C"/AU OR "CHEN J S F"/AU OR "CHEN J S FRED"
               /AU OR "CHEN J S J"/AU OR "CHEN J SAMUEL"/AU OR "CHEN J W"/AU OR
               "CHEN J W C"/AU OR "CHEN JAMES Y"/AU

=> E STEIN G/AU
=> S E3,E54,E55
            274 "STEIN G"/AU
              1 "STEIN GREGORY"/AU
              2 "STEIN GREGORY L"/AU
L31         277 ("STEIN G"/AU OR "STEIN GREGORY"/AU OR "STEIN GREGORY L"/AU)

=> E FRANCESCHINI T/AU
=> S E3-E5
              5 "FRANCESCHINI T"/AU
              8 "FRANCESCHINI THOMAS"/AU
              4 "FRANCESCHINI THOMAS J"/AU
L32          17 ("FRANCESCHINI T"/AU OR "FRANCESCHINI THOMAS"/AU OR "FRANCESCHIN
                I THOMAS J"/AU)

=> E ANDERSON W/AU
=> S E4-E12,E15,E16,E25,E28,E3-E31,E36,E115-E123
            343 "ANDERSON W A"/AU
              2 "ANDERSON W A C"/AU
             39 "ANDERSON W A D"/AU
              1 "ANDERSON W A D JR"/AU
              3 "ANDERSON W A DOUGLAS"/AU
              1 "ANDERSON W ALAN"/AU
             61 "ANDERSON W B"/AU
              1 "ANDERSON W BANKS"/AU
              1 "ANDERSON W BILL"/AU
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             4 "ANDERSON W D"/AU
             3 "ANDERSON W DARLENE"/AU
            21 "ANDERSON W H"/AU
             9 "ANDERSON W H KERR"/AU
           137 "ANDERSON W"/AU
           343 "ANDERSON W A"/AU
             2 "ANDERSON W A C"/AU
            39 "ANDERSON W A D"/AU
             1 "ANDERSON W A D JR"/AU
             3 "ANDERSON W A DOUGLAS"/AU
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            61 "ANDERSON W B"/AU
             1 "ANDERSON W BANKS"/AU
             1 "ANDERSON W BILL"/AU
             9 "ANDERSON W C"/AU
             1 "ANDERSON W CARRICK"/AU
             4 "ANDERSON W D"/AU
             3 "ANDERSON W DARLENE"/AU
            32 "ANDERSON W E"/AU
             2 "ANDERSON W EARL"/AU
            60 "ANDERSON W F"/AU
             1 "ANDERSON W F JR"/AU
             3 "ANDERSON W FERGUSON"/AU
           293 "ANDERSON W FRENCH"/AU
            31 "ANDERSON W G"/AU
            14 "ANDERSON W GARY"/AU
            21 "ANDERSON W H"/AU
             2 "ANDERSON W H C"/AU
             1 "ANDERSON W H K"/AU
             9 "ANDERSON W H KERR"/AU
             2 "ANDERSON W I"/AU
            41 "ANDERSON W J"/AU
             1 "ANDERSON W J A"/AU
            24 "ANDERSON W L"/AU
             2 "ANDERSON WENDY"/AU
             3 "ANDERSON WENDY A"/AU
             1 "ANDERSON WENDY ANN"/AU
             1 "ANDERSON WENDY BELINDA"/AU
             1 "ANDERSON WENDY D"/AU
             5 "ANDERSON WENDY H"/AU
             1 "ANDERSON WENDY J"/AU
             1 "ANDERSON WENDY JANE ANNE"/AU
             5 "ANDERSON WENDY L"/AU
L33       1161 ("ANDERSON W A"/AU OR "ANDERSON W A C"/AU OR "ANDERSON W A D"/AU
                OR "ANDERSON W A D JR"/AU OR "ANDERSON W A DOUGLAS"/AU OR "ANDE
               RSON W ALAN"/AU OR "ANDERSON W B"/AU OR "ANDERSON W BANKS"/AU OR
               "ANDERSON W BILL"/AU OR "ANDERSON W D"/AU OR "ANDERSON W DARLENE"
               /AU OR "ANDERSON W H"/AU OR "ANDERSON W H KERR"/AU OR "ANDERSON
               W"/AU OR "ANDERSON W A"/AU OR "ANDERSON W A C"/AU OR "ANDERSON W
               A D"/AU OR "ANDERSON W A D JR"/AU OR "ANDERSON W A DOUGLAS"/AU
               OR "ANDERSON W ALAN"/AU OR "ANDERSON W B"/AU OR "ANDERSON W BANKS
               "/AU OR "ANDERSON W BILL"/AU OR "ANDERSON W C"/AU OR "ANDERSON W
               CARRICK"/AU OR "ANDERSON W D"/AU OR "ANDERSON W DARLENE"/AU OR
               "ANDERSON W E"/AU OR "ANDERSON W EARL"/AU OR "ANDERSON W F"/AU
               OR "ANDERSON W F JR"/AU OR "ANDERSON W FERGUSON"/AU OR "ANDERSON
               W FRENCH"/AU OR "ANDERSON W G"/AU OR "ANDERSON W GARY"/AU OR
               "ANDERSON W H"/AU OR "ANDERSON W H C"/AU OR "ANDERSON W H K"/AU
               OR "ANDERSON W H KERR"/AU OR "ANDERSON W I"/AU OR "ANDERSON W
               J"/AU OR "ANDERSON W J A"/AU OR


=> S L25,L26,L28,L29,L30,L31,L32,L33
L34       6307 (L25 OR L26 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33)

=> S L34 AND L13
L35         14 L34 AND L13
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=> S L34 AND L15
L36          4 L34 AND L15

=> D 1-4 TI
=> D 4 CBIB ABS

L36  ANSWER 4 OF 4  CAPLUS  COPYRIGHT 2006 ACS on STN
1993:156681  Document No. 118:156681  Oxidation of dimethylaniline by
     horseradish peroxidase and electrogenerated peroxide.  II.
     Immobilized enzyme studies.  Chen, J. K.;
     Nobe, K. (Dep. Chem. Eng., Univ. California, Los Angeles, CA, 90024-1592,
     USA).  Journal of the Electrochemical Society, 140(2), 304-8 (English)
     1993.  CODEN: JESOAN.  ISSN: 0013-4651.
AB   N-Demethylation of N,N-dimethylaniline with H2O2 and horseradish peroxidase (HRP)
     immobilized on graphite felt in a flow reactor was studied.  The kinetics of this
     reaction with immobilized HRP were different than with free enzyme.  Immobilized HRP
     was stable at higher temps. than the free enzyme.  The kinetics can be described by a
     Michaelis-Menton relation based on a simple Ping Pong model.


=> S L35 NOT L36
L37          10 L35 NOT L36

=> D 1-10 TI
=> D 8 CBIB ABS

L37  ANSWER 8 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
1993:20992  Document No. 118:20992  Process development for production of
     terpene esters using immobilized lipase in organic media.  De
     Castro, H. F.; Anderson, W. A.; Legge, R. L.; Moo-Young, M.
     (Dep. Chem. Eng., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.).  Indian
     Journal of Chemistry, Section B:  Organic Chemistry Including Medicinal
     Chemistry, 31B(12), 891-5 (English) 1992.  CODEN: IJSBDB.  ISSN:
     0376-4699.
AB   Suitable engineering strategies for removal and control of water generated during the
     esterification of citronellol with butyric acid using a com. lipase preparation were
     investigated.  The system was investigated under batch conditions to provide background
     information on the kinetics and the role of water.  Modification of the hydration state
     of the lipozyme during the reaction was the most important factor in inhibiting ester
     synthesis in consecutive batch runs.  Dehydration of the recovered enzyme restored the
     activity to levels similar to those achieved in the initial batch run.  A comparison of
     the influence of different dehydration techniques on the repeated batch use of lipozyme
     for terpene ester synthesis is presented.

=> S L34 AND L4
L38          17 L34 AND L4

=> S L38 NOT (L35,L36)
L39          17 L38 NOT ((L35 OR L36))

=> D 1-17 TI
=> D 2 CBIB ABS

L39  ANSWER 2 OF 17  CAPLUS  COPYRIGHT 2006 ACS on STN
2004:739860  Document No. 141:259472  Process for preparing dideoxyinosine
     using recombinant human adenosine deaminase.
     Skonezny, Paul M.; Politino, Michael; Liu, Suo
     W.; Boyle, Alfred W.; Chen, Jason G.; Stein,
     Gregory L.; Franceschini, Thomas; Anderson, Wendy
     L. (USA).  U.S. Pat. Appl. Publ. US 2004175804 A1 20040909, 13 pp.
     (English).  CODEN: USXXCO.  APPLICATION: US 2004-787284 20040226.
     PRIORITY: US 2003-2003/PV451842 20030304.
AB   A method of making didanosine (ddI) including the steps of: (a) obtaining an enzyme
     expressing ddA deaminase activity; (b) immobilizing the enzyme onto an insol. support;
     (c) contacting the enzyme with a dideoxyadenosine (ddA) solution of at least about 4%
     weight volume ddA in water for a time and under conditions to produce a ddI solution;
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and (d) isolating the ddI from the ddI solution Optionally, the ddI mother liquor is reused in subsequent runs to improve yield.

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OM protein - protein search, using sw model

Run on: September 28, 2006, 14:41:09 ; Search time 200 Seconds
(without alignments)
829.848 Million cell updates/sec

Title: US-10-787-284-1
Perfect score: 1908
Sequence: 1 MAQTPAFDKPKVELHVHLDG.....LDLLYKAYGMPPSASAGQNL 363

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2589679 seqs, 457216429 residues

Total number of hits satisfying chosen parameters: 2589679

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_8:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*
10: geneseqp2006s:*

GenCore version 5.1.9
Copyright (c) 1993 - 2006 Biocceleration Ltd.

OM protein - protein search, using sw model

Run on: September 28, 2006, 14:50:29 ; Search time 51 Seconds
(without alignments)
623.012 Million cell updates/sec

Title: US-10-787-284-1
Perfect score: 1908
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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 650591 seqs, 87530628 residues

Total number of hits satisfying chosen parameters: 650591

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

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1: /EMC_Celerra_SIDS3/ptodata/2/iaa/5_COMB.pep:*
2: /EMC_Celerra_SIDS3/ptodata/2/iaa/6_COMB.pep:*
3: /EMC_Celerra_SIDS3/ptodata/2/iaa/7_COMB.pep:*
4: /EMC_Celerra_SIDS3/ptodata/2/iaa/H_COMB.pep:*
5: /EMC_Celerra_SIDS3/ptodata/2/iaa/PCTUS_COMB.pep:*
6: /EMC_Celerra_SIDS3/ptodata/2/iaa/RE_COMB.pep:*
7: /EMC_Celerra_SIDS3/ptodata/2/iaa/backfiles1.pep:*

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OM protein - protein search, using sw model

Run on: September 28, 2006, 15:02:40 ; Search time 179 Seconds
(without alignments)
939.369 Million cell updates/sec

Title: US-10-787-284-1
Perfect score: 1908
Sequence: 1 MAQTPAFDKPKVELHVHLDG.....LDLLYKAYGMPPSASAGQNL 363

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2097797 seqs, 463214858 residues

Total number of hits satisfying chosen parameters: 2097797

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_Main:*
1: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
2: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
3: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
4: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
5: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
6: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US11_PUBCOMB.pep:*

GenCore version 5.1.9
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OM protein - protein search, using sw model

Run on: September 28, 2006, 15:03:34 ; Search time 38 Seconds
(without alignments)
741.894 Million cell updates/sec

Title: US-10-787-284-1
Perfect score: 1908
Sequence: 1 MAQTPAFDKPKVELHVHLDG.....LDLLYKAYGMPPSASAGQNL 363

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 285145 seqs, 77663843 residues

Total number of hits satisfying chosen parameters: 285145

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_New:*
1: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
2: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
3: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
4: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
5: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
6: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
7: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US11_NEW_PUB.pep:*
8: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US60_NEW_PUB.pep:*

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OM protein - protein search, using sw model

Run on: September 28, 2006, 14:45:25 ; Search time 43 Seconds
(without alignments)
812.248 Million cell updates/sec

Title: US-10-787-284-1
Perfect score: 1908
Sequence: 1 MAQTPAFDKPKVELHVHLDG.....LDLLYKAYGMPPSASAGQNL 363

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

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OM protein - protein search, using sw model

Run on: September 28, 2006, 14:41:53 ; Search time 303 Seconds
(without alignments)
1108.187 Million cell updates/sec

Title: US-10-787-284-1
Perfect score: 1908
Sequence: 1 MAQTPAFDKPKVELHVHLDG.....LDLLYKAYGMPPSASAGQNL 363

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2849598 seqs, 925015592 residues

Total number of hits satisfying chosen parameters: 2849598

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_7.2:*
1: uniprot_sprot:*
2: uniprot_trembl:*

GenCore version 5.1.9
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:00:26 ; Search time 9283.14 Seconds
(without alignments)
10739.262 Million cell updates/sec

Title: US-10-787-284-2
Perfect score: 1559
Sequence: 1 ggcacgaggcgtggccggcc.....aaaaaaaaaaaaaaaaaaa 1559

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 6366136 seqs, 31973710525 residues

Total number of hits satisfying chosen parameters: 12732272

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : GenEmbl:*
1: gb_env:*
2: gb_pat:*
3: gb_ph:*
4: gb_pl:*
5: gb_pr:*
6: gb_ro:*
7: gb_sts:*
8: gb_sy:*
9: gb_un:*
10: gb_vi:*
11: gb_ov:*
12: gb_htg:*
13: gb_in:*
14: gb_om:*
15: gb_ba:*

GenCore version 5.1.9
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:00:26 ; Search time 1069.98 Seconds
(without alignments)
10158.799 Million cell updates/sec

Title: US-10-787-284-2
Perfect score: 1559
Sequence: 1 ggcacgaggcgtggccggcc.....aaaaaaaaaaaaaaaaaaa 1559

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 5244920 seqs, 3486124231 residues

Total number of hits satisfying chosen parameters: 10489840

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_8:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
4: geneseqn2001as:*
5: geneseqn2001bs:*
6: geneseqn2002as:*
7: geneseqn2002bs:*
8: geneseqn2003as:*
9: geneseqn2003bs:*
10: geneseqn2003cs:*
11: geneseqn2003ds:*
12: geneseqn2004as:*
13: geneseqn2004bs:*
14: geneseqn2005s:*
15: geneseqn2006s:*

GenCore version 5.1.9
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:47:56 ; Search time 319.765 Seconds
(without alignments)
9122.512 Million cell updates/sec

Title: US-10-787-284-2
Perfect score: 1559
Sequence: 1 ggcacgaggcgtggccggcc.....aaaaaaaaaaaaaaaaaaa 1559

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 1403666 seqs, 935554401 residues

Total number of hits satisfying chosen parameters: 2807332

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

```
Database :        Issued_Patents_NA:*
                 1:  /EMC_Celerra_SIDS3/ptodata/2/ina/1_COMB.seq:*
                 2:  /EMC_Celerra_SIDS3/ptodata/2/ina/5_COMB.seq:*
                 3:  /EMC_Celerra_SIDS3/ptodata/2/ina/6A_COMB.seq:*
                 4:  /EMC_Celerra_SIDS3/ptodata/2/ina/6B_COMB.seq:*
                 5:  /EMC_Celerra_SIDS3/ptodata/2/ina/7_COMB.seq:*
                 6:  /EMC_Celerra_SIDS3/ptodata/2/ina/H_COMB.seq:*
                 7:  /EMC_Celerra_SIDS3/ptodata/2/ina/PCTUS_COMB.seq:*
                 8:  /EMC_Celerra_SIDS3/ptodata/2/ina/PP_COMB.seq:*
                 9:  /EMC_Celerra_SIDS3/ptodata/2/ina/RE_COMB.seq:*
                 10:  /EMC_Celerra_SIDS3/ptodata/2/ina/backfiles1.seq:*

                            GenCore version 5.1.9
                      Copyright (c) 1993 - 2006  Biocceleration Ltd.


OM nucleic - nucleic search, using sw model

Run on:          September 28, 2006, 18:05:30 ; Search time 2202.63 Seconds
                                              (without alignments)
                                              8697.071 Million cell updates/sec

Title:           US-10-787-284-2
Perfect score:   1559
Sequence:        1 ggcacgaggcgtggccggcc.....aaaaaaaaaaaaaaaaaaaa 1559

Scoring table:   IDENTITY_NUC
                 Gapop 10.0 , Gapext 1.0

Searched:        18892170 seqs, 6143817638 residues

Total number of hits satisfying chosen parameters:      37784340

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :        Published_Applications_NA_Main:*
                 1:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US07_PUBCOMB.seq:*
                 2:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US08_PUBCOMB.seq:*
                 3:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
                 4:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
                 5:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
                 6:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
                 7:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
                 8:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
                 9:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10D_PUBCOMB.seq:*
                 10:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
                 11:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10F_PUBCOMB.seq:*
                 12:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10G_PUBCOMB.seq:*
                 13:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11A_PUBCOMB.seq:*
                 14:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11B_PUBCOMB.seq:*
                 15:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11C_PUBCOMB.seq:*
                 16:  /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11D_PUBCOMB.seq:*

                            GenCore version 5.1.9
                      Copyright (c) 1993 - 2006  Biocceleration Ltd.


OM nucleic - nucleic search, using sw model

Run on:          September 28, 2006, 21:59:17 ; Search time 358.418 Seconds
                                              (without alignments)
```

8026.453 Million cell updates/sec

Title: US-10-787-284-2
Perfect score: 1559
Sequence: 1 ggcacgaggcgtggccggcc.....aaaaaaaaaaaaaaaaaaa 1559

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2370645 seqs, 922650133 residues

Total number of hits satisfying chosen parameters: 4741290

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA_New:*
1: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09_NEW_PUB.seq:*
2: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US06_NEW_PUB.seq:*
3: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US07_NEW_PUB.seq:*
4: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US08_NEW_PUB.seq:*
5: /EMC_Celerra_SIDS3/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
6: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10_NEW_PUB.seq:*
7: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
8: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq1:*
9: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq2:*
10: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US60_NEW_PUB.seq:*

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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:11:16 ; Search time 8241.85 Seconds
(without alignments)
10577.507 Million cell updates/sec

Title: US-10-787-284-2
Perfect score: 1559
Sequence: 1 ggcacgaggcgtggccggcc.....aaaaaaaaaaaaaaaaaaa 1559

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 48236798 seqs, 27959665780 residues

Total number of hits satisfying chosen parameters: 96473596

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:*
1: gb_est1:*
2: gb_est3:*
3: gb_est4:*
4: gb_est5:*
5: gb_est6:*
6: gb_htc:*

7: gb_est2:*
8: gb_est7:*
9: gb_est8:*
10: gb_est9:*
11: gb_gss1:*
12: gb_gss2:*
13: gb_gss3:*
14: gb_gss4:*

GenCore version 5.1.9
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:00:26 ; Search time 6567.86 Seconds
(without alignments)
10739.262 Million cell updates/sec

Title: US-10-787-284-3
Perfect score: 1103
Sequence: 1 ccatggcccagacgccggcc.....agaacctctgataaggatcc 1103

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 6366136 seqs, 31973710525 residues

Total number of hits satisfying chosen parameters: 12732272

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : GenEmbl:*
1: gb_env:*
2: gb_pat:*
3: gb_ph:*
4: gb_pl:*
5: gb_pr:*
6: gb_ro:*
7: gb_sts:*
8: gb_sy:*
9: gb_un:*
10: gb_vi:*
11: gb_ov:*
12: gb_htg:*
13: gb_in:*
14: gb_om:*
15: gb_ba:*

GenCore version 5.1.9
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:00:26 ; Search time 757.018 Seconds
(without alignments)
10158.799 Million cell updates/sec

Title: US-10-787-284-3
Perfect score: 1103
Sequence: 1 ccatggcccagacgccggcc.....agaacctctgataaggatcc 1103

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 5244920 seqs, 3486124231 residues

Total number of hits satisfying chosen parameters: 10489840

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_8:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
4: geneseqn2001as:*
5: geneseqn2001bs:*
6: geneseqn2002as:*
7: geneseqn2002bs:*
8: geneseqn2003as:*
9: geneseqn2003bs:*
10: geneseqn2003cs:*
11: geneseqn2003ds:*
12: geneseqn2004as:*
13: geneseqn2004bs:*
14: geneseqn2005s:*
15: geneseqn2006s:*

GenCore version 5.1.9
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:47:56 ; Search time 226.235 Seconds
(without alignments)
9122.512 Million cell updates/sec

Title: US-10-787-284-3
Perfect score: 1103
Sequence: 1 ccatggcccagacgccggcc.....agaacctctgataaggatcc 1103

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 1403666 seqs, 935554401 residues

Total number of hits satisfying chosen parameters: 2807332

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_NA:*
1: /EMC_Celerra_SIDS3/ptodata/2/ina/1_COMB.seq:*
2: /EMC_Celerra_SIDS3/ptodata/2/ina/5_COMB.seq:*
3: /EMC_Celerra_SIDS3/ptodata/2/ina/6A_COMB.seq:*
4: /EMC_Celerra_SIDS3/ptodata/2/ina/6B_COMB.seq:*
5: /EMC_Celerra_SIDS3/ptodata/2/ina/7_COMB.seq:*
6: /EMC_Celerra_SIDS3/ptodata/2/ina/H_COMB.seq:*

7: /EMC_Celerra_SIDS3/ptodata/2/ina/PCTUS_COMB.seq:*
8: /EMC_Celerra_SIDS3/ptodata/2/ina/PP_COMB.seq:*
9: /EMC_Celerra_SIDS3/ptodata/2/ina/RE_COMB.seq:*
10: /EMC_Celerra_SIDS3/ptodata/2/ina/backfiles1.seq:*

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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 18:05:30 ; Search time 1558.37 Seconds
(without alignments)
8697.071 Million cell updates/sec

Title: US-10-787-284-3
Perfect score: 1103
Sequence: 1 ccatggcccagacgccggcc.....agaacctctgataaggatcc 1103

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 18892170 seqs, 6143817638 residues

Total number of hits satisfying chosen parameters: 37784340

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA_Main:*
1: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US07_PUBCOMB.seq:*
2: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US08_PUBCOMB.seq:*
3: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
4: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
5: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
6: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
7: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
8: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
9: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10D_PUBCOMB.seq:*
10: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
11: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10F_PUBCOMB.seq:*
12: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10G_PUBCOMB.seq:*
13: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11A_PUBCOMB.seq:*
14: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11B_PUBCOMB.seq:*
15: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11C_PUBCOMB.seq:*
16: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11D_PUBCOMB.seq:*

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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 21:59:17 ; Search time 253.582 Seconds
(without alignments)
8026.453 Million cell updates/sec

Title: US-10-787-284-3
Perfect score: 1103
Sequence: 1 ccatggcccagacgccggcc.....agaacctctgataaggatcc 1103

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2370645 seqs, 922650133 residues

Total number of hits satisfying chosen parameters: 4741290

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA_New:*
1: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09_NEW_PUB.seq:*
2: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US06_NEW_PUB.seq:*
3: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US07_NEW_PUB.seq:*
4: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US08_NEW_PUB.seq:*
5: /EMC_Celerra_SIDS3/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
6: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10_NEW_PUB.seq:*
7: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
8: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq1:*
9: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq2:*
10: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US60_NEW_PUB.seq:*

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OM nucleic - nucleic search, using sw model

Run on: September 28, 2006, 17:11:16 ; Search time 5831.15 Seconds
(without alignments)
10577.507 Million cell updates/sec

Title: US-10-787-284-3
Perfect score: 1103
Sequence: 1 ccatggcccagacgccggcc.....agaacctctgataaggatcc 1103

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 48236798 seqs, 27959665780 residues

Total number of hits satisfying chosen parameters: 96473596

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:*
1: gb_est1:*
2: gb_est3:*
3: gb_est4:*
4: gb_est5:*
5: gb_est6:*
6: gb_htc:*
7: gb_est2:*
8: gb_est7:*
9: gb_est8:*
10: gb_est9:*
11: gb_gss1:*
12: gb_gss2:*
13: gb_gss3:*
14: gb_gss4:*

Title: US-10-787-284-1

RESULT 1
US-09-301-665-4
; Sequence 4, Application US/09301665
; Patent No. 6207876
; GENERAL INFORMATION:
; APPLICANT: KELLEMS, RODNEY E.
; APPLICANT: DATTA, SURJIT K.
; APPLICANT: BLACKBURN, MICHAEL R.
; TITLE OF INVENTION: ADENOSINE DEAMINASE DEFICIENT TRANSGENIC MICE AND
; TITLE OF INVENTION: METHODS FOR THE USE THEREOF
; FILE REFERENCE: UTSH:243
; CURRENT APPLICATION NUMBER: US/09/301,665
; CURRENT FILING DATE: 1999-04-28
; EARLIER APPLICATION NUMBER: 60/083,408
; EARLIER FILING DATE: 1998-04-29
; EARLIER APPLICATION NUMBER: 60/083,370
; EARLIER FILING DATE: 1998-04-28
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 363
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-301-665-4

Query Match 100.0%; Score 1908; DB 2; Length 363;
Best Local Similarity 100.0%; Pred. No. 2.2e-195;
Matches 363; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        181 DLAGDETIPGSSLLPGHVQAYQEAVKSGIHRTVHAGEVGSAEVVKEAVDILKTERLGHGY 240
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Qy        241 HTLEDQALYNRLRQENMHFEICPWSSYLTGAWKPDTEHAVIRLKNDQANYSLNTDDPLIF 300
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Db        241 HTLEDQALYNRLRQENMHFEICPWSSYLTGAWKPDTEHAVIRLKNDQANYSLNTDDPLIF 300

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Db        301 KSTLDTDYQMTKRDMGFTEEEFKRLNINAAKSSFLPEDEKRELLDLLYKAYGMPPSASAG 360

Qy        361 QNL 363
              |||
Db        361 QNL 363
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RESULT 1
DUHUA
adenosine deaminase (EC 3.5.4.4) - human
N;Alternate names: adenosine aminohydrolase
C;Species: Homo sapiens (man)
C;Date: 25-Feb-1985 #sequence_revision 13-Aug-1986 #text_change 09-Jul-2004

C;Accession: A91032; A92446; A24638; A21127; A01009
R;Valerio, D.; Duyvesteyn, M.G.C.; Dekker, B.M.M.; Weeda, G.; Berkvens, T.M.; van der Voorn, L.; van Ormondt, H.; van der Eb, A.J.
EMBO J. 4, 437-443, 1985
A;Title: Adenosine deaminase: characterization and expression of a gene with a remarkable promoter.
A;Reference number: A91032; MUID:85257473; PMID:3839456
A;Accession: A91032
A;Molecule type: DNA
A;Residues: 1-363 <VAL>
A;Cross-references: UNIPROT:P00813; UNIPARC:UPI000000D982; GB:X02189; NID:g28358; PIDN:CAA26130.1; PID:g1197210
R;Daddona, P.E.; Shewach, D.S.; Kelley, W.N.; Argos, P.; Markham, A.F.; Orkin, S.H.
J. Biol. Chem. 259, 12101-12106, 1984
A;Title: Human adenosine deaminase. cDNA and complete primary amino acid sequence.
A;Reference number: A92446; MUID:85006946; PMID:6090454
A;Accession: A92446
A;Molecule type: mRNA
A;Residues: 1-363 <DAD>
A;Cross-references: UNIPARC:UPI000000D982; GB:K02567; NID:g28379; PIDN:CAA26734.1; PID:g28380
R;Wiginton, D.A.; Kaplan, D.J.; States, J.C.; Akeson, A.L.; Perme, C.M.; Bilyk, I.J.; Vaughn, A.J.; Lattier, D.L.; Hutton, J.J.
Biochemistry 25, 8234-8244, 1986
A;Title: Complete sequence and structure of the gene for human adenosine deaminase.
A;Reference number: A24638; MUID:87128922; PMID:3028473
A;Accession: A24638
A;Molecule type: DNA
A;Residues: 1-363 <WIG>
A;Cross-references: UNIPARC:UPI000000D982; GB:M13792; NID:g178076; PIDN:AAA78791.1; PID:g178077
R;Wiginton, D.A.; Adrian, G.S.; Hutton, J.J.
Nucleic Acids Res. 12, 2439-2446, 1984
A;Title: Sequence of human adenosine deaminase cDNA including the coding region and a small intron.
A;Reference number: A21127; MUID:84169545; PMID:6546794
A;Accession: A21127
A;Molecule type: mRNA
A;Residues: 1-363 <WI2>
A;Cross-references: UNIPARC:UPI000000D982; GB:X02994; NID:g28379; PIDN:CAA26734.1; PID:g28380
C;Comment: This enzyme, found in all tissues, occurs in large amounts in T-lymphocytes and at the time of weaning in gastrointestinal tissues.
C;Comment: Absence or diminished activity of this enzyme in lymphocytes causes one form of severe combined immunodeficiency disease (SCID).
C;Comment: In hereditary hemolytic anemia, the level of this enzyme in erythrocytes increases 50-70 times.
C;Genetics:
A;Gene: GDB:ADA
A;Cross-references: GDB:119649; OMIM:102700
A;Map position: 20q13.11-20q13.11
A;Introns: 11/3; 32/2; 73/2; 121/2; 160/1; 202/3; 226/3; 260/3; 282/2; 325/3; 360/1
C;Function:
A;Description: catalyzes the hydrolysis of adenosine to inosine and ammonia
A;Pathway: purine catabolism
A;Note: also active on deoxyadenosine
C;Superfamily: adenosine deaminase
C;Keywords: hereditary hemolytic anemia; hydrolase; metalloprotein; purine catabolism; immunodeficiency; zinc
F;15,17,214,295/Binding site: zinc (His, His, His, Asp) #status predicted
F;217,238,295/Active site: Glu, His, Asp #status predicted

Query Match 100.0%; Score 1908; DB 1; Length 363;
Best Local Similarity 100.0%; Pred. No. 2.4e-143;
Matches 363; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MAQTPAFDKPKVELHVHLDGSIKPETILYYGRRRGIALPANTAEGLLNVIGMDKPLTLPD 60
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Db          1 MAQTPAFDKPKVELHVHLDGSIKPETILYYGRRRGIALPANTAEGLLNVIGMDKPLTLPD 60
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Qy          61 FLAKFDYYMPAIAGCREAIKRIAYEFVEMKAKEGVVYVEVRYSPHLLANSKVEPIPWNQA 120
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Qy         121 EGDLTPDEVVALVGQGLQEGERDFGVKARSILCCMRHQPNWSPKVVELCKKYQQQTVVAI 180
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Db         121 EGDLTPDEVVALVGQGLQEGERDFGVKARSILCCMRHQPNWSPKVVELCKKYQQQTVVAI 180

Qy         181 DLAGDETIPGSSLLPGHVQAYQEAVKSGIHRTVHAGEVGSAEVVKEAVDILKTERLGHGY 240
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Db         241 HTLEDQALYNRLRQENMHFEICPWSSYLTGAWKPDTEHAVIRLKNDQANYSLNTDDPLIF 300

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Qy         361 QNL 363
               |||
Db         361 QNL 363
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Title: US-10-787-284-3

RESULT 4
US-09-301-665-1
; Sequence 1, Application US/09301665
; Patent No. 6207876
; GENERAL INFORMATION:
; APPLICANT: KELLEMS, RODNEY E.
; APPLICANT: DATTA, SURJIT K.
; APPLICANT: BLACKBURN, MICHAEL R.
; TITLE OF INVENTION: ADENOSINE DEAMINASE DEFICIENT TRANSGENIC MICE AND
; TITLE OF INVENTION: METHODS FOR THE USE THEREOF
; FILE REFERENCE: UTSH:243
; CURRENT APPLICATION NUMBER: US/09/301,665
; CURRENT FILING DATE: 1999-04-28
; EARLIER APPLICATION NUMBER: 60/083,408
; EARLIER FILING DATE: 1998-04-29
; EARLIER APPLICATION NUMBER: 60/083,370
; EARLIER FILING DATE: 1998-04-28
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 1379
; TYPE: DNA
; ORGANISM: Mus musculus
US-09-301-665-1

Query Match 64.4%; Score 710.8; DB 3; Length 1379;
Best Local Similarity 79.2%; Pred. No. 1e-164;
Matches 844; Conservative 0; Mismatches 222; Indels 0; Gaps 0;

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Qy         61 GTTCCATCAAGCCGGAAACCATCCTGTACTATGGCCGTCGTCGCGGTATCGCCCTGCCGG 120
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Qy        121 CTAACACAGCAGAGGGTCTGCTGAACGTCATTGGCATGGACAAGCCGCTGACCCTGCCGG 180
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